

### Claims

What is claimed is:

1. A system for gathering and aggregating operational metrics of a plurality of members configured as an entity, comprising:  
at least one of the plurality of members having a gathering and aggregation system adapted to gather operational metric data from the plurality of members and aggregate the operational metric data into a unified result set.
2. The system of claim 1, wherein each of the plurality of members have a gathering and aggregation system such that the unified result set can be gathered and aggregated from any of the plurality of members.
3. The system of claim 1, further comprising a metric monitor system for each of the plurality of members, the metric monitoring system monitoring member specific metrics and employing a time aggregation component to aggregate member specific metrics over time.
4. The system of claim 3, the time aggregation component being further operable to aggregate member specific performance metrics data into data of larger time periods and larger resolutions.
5. The system of claim 4, the time aggregation component aggregating member specific performance metrics data into data of larger time periods and larger resolutions by taking one of an average, a minimum, a maximum, a last and a weighted average of performance metrics data of a first time period and first resolution to evaluate performance metric data of a consecutive time period and consecutive resolution.

6. The system of claim 1, the gathering and aggregation system further comprising a performance metric aggregation component adapted to gather and aggregate performance metric data values of a particular time period and resolution from the plurality of members based on a time period requested by a requestor.

7. The system of claim 6, the performance metric aggregation component being operable to aggregate data performance values having similar data times to form a unified result set over the particular time period and time resolution.

8. The system of claim 7, the performance metric aggregation component aggregating member specific performance metrics data into a unified result set by evaluating a single data value for data points of similar data times by taking one of an average, a minimum, a maximum, a last and a weighted average data of similar data times.

9. The system of claim 1, the plurality of members logging member specific operational metrics to a data store corresponding to that particular member.

10. The system of claim 1, the gathering and aggregation system being further adapted to receive a request from a requestor for operational metric information for the entity and return the unified result set back to the requestor.

11. The system of claim 10, the requestor being one of an external process, an internal process, an external consumer, a user interface and another entity.

12. The system of claim 1, at least one of the plurality of members being configurable to receive a configuration setting defining the operational metric information to be logged and replicating the configuration setting to the plurality of members.

13. The system of claim 12, wherein any of the plurality of members are

configurable to receive a configuration setting defining the operational metric information to be logged.

14. The system of claim 1, the operational metric data being at least one of performance metric data, event metric data, status metric data and health metric data.

15. The system of claim 1, the gathering and aggregation system being operable to aggregate valid operational metric data and compensate for invalid operational metric data.

16. The system of claim 1, the gathering and aggregation system being further adapted to provide a unified result set of operational metric data for a single member.

17. A system for gathering and aggregating operational metrics of a plurality of members configured as an entity, comprising:

at least one of the plurality of members having a gathering and aggregation system adapted to gather operational event metric data from the plurality of members and coalesce the operational event metric data into a unified result set.

18. The system of claim 17, the gathering and aggregation system being further adapted to receive a request from a requestor for operational event metric data for the entity and return a portion of the unified result set back to the requestor.

19. The system of claim 18, each event having a unique identifier, the gathering and aggregation system employing at least one of the unique identifier of a first and a last event of the portion to provide one of a previous and subsequent portion of the unified result set back to the requestor upon request by the requestor and a specific unique identifier for additional information on a specific event upon request by the requestor.

20. The system of claim 19, the unique identifier comprising an event identifier,

an event source and an event time.

21. The system of claim 18, further comprising event filters for filtering out events not to be returned to the requestor.

22. A system for gathering and aggregating operational metrics of a plurality of members configured as an entity to determine a health state of the entity, comprising:

at least one of the plurality of members having a gathering and aggregation system adapted to gather operational metric data from the plurality of members and aggregate the operational metric data into at least one of a single result state based on a set of predefined rules.

23. The system of claim 22, each of the plurality of members determining a member health state based on a member specific health rule set, the gathering and aggregation system gathering the member health states from the plurality of members and applying a health entity aggregation rule set to determine a health state of the entity.

24. The system of claim 22, the gathering and aggregation system aggregating the operational metric data from the plurality of members into a unified result set and applying a health member aggregation rule set to determine a health state of the entity.

25. A method for gathering and aggregating operational metrics of a plurality of members configured as an entity, comprising the step of:

querying an operational metric from a plurality of members; and

aggregating the operational metric from the plurality of members to form a unified result set.

26. The method of claim 25, further comprising the steps of receiving a request from a requestor for an operational metric for the entity prior to the step of querying and

returning the unified result step after the step of aggregating.

27. The method of claim 25, further comprising the step aggregating the operational metric over time at each of the plurality of members prior to the step of querying.

28. The method of claim 27, the step aggregating the operational metric over time at each of the plurality of members comprising the step of aggregating the operational metric into data of at least one larger time period and larger time resolution.

29. The method of claim 28, the operational metric being an operational performance metric and the step of aggregating the operational metric from the plurality of members to form a unified result set comprising aggregating data performance values having similar data times to form a unified result set.

30. The method of claim 25, further comprising a step of setting a configuration at one of the plurality of members defining the operational metric data to be logged at each of the plurality of members and replicating the configuration to each of the plurality of members.

31. The method of claim 25, the operational metric being an operational event metric and the step of aggregating the operational metric from the plurality of members to form a unified result set comprising the step of coalescing events from the plurality of members to form a unified result set.

32. The method of claim 31, further comprising the steps of receiving a request from a requestor for events for the entity prior to the step of querying and returning a portion of the unified result step after the step of aggregating.

33. The method of claim 32, further comprising the step of assigning each event a

40. The system of claim 39, further comprising means for receiving a request from

a requestor for an operational metric for the entity and means for returning the unified result set.

41. The system of claim 39, further comprising means for setting a configuration at one of the plurality of members defining the operational metric data to be logged at each of the plurality of members and means for replicating the configuration to each of the plurality of members.

42. The system of claim 39, the operational metric being at least one of a performance metric, an event metric, a status metric and a health metric.

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